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EXAMINER

WALSH, JOHN B

ART UNIT	PAPER NUMBER
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2151

DATE MAILED: 08/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/894,211

Applicant(s)

HAMMER, MORDECHAI

Examiner

John B. Walsh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-50 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 8-12, 16-18, 23, 24, 36, 38, 40-42, 45, 47 and 50 is/are rejected.
- 7) ☒ Claim(s) 6, 7, 13-15, 19-22, 25-35, 37, 39, 43, 44, 46, 48 and 49 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

1. The election/restriction has been withdrawn.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Currently the last sentence of the abstract uses a phrase that can be implied. The applicant should delete this sentence from the abstract. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 50 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 50, lines 1-8, The phrase "such as", line 3, renders the claim indefinite since it cannot be determined if the following list operates as a limitation or restriction on the "systems, devices or structures" set forth lines 2 and 3.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3, 5, 8, 16-18, 36, 38, 41, 42, 45, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pipes, U.S. Patent No. 4,388,033 in view of Wilding, U.S. Patent No. 5,040,941.

Pipes discloses a motion transmission and multiplication system (10) comprising: at least first 12 and second 14 elements extending in the same orientation; and at least a first means 62 linking said first 12 and second 14 elements and being movable with respect to at least one of them, said first linking means 62 being arranged on said first element 12 such that when said first linking means 62 is provided with a driving motion (by pinion 22) in a direction of said orientation, said first 12 and second 14 elements are provided with a driven motion with respect to each other. First element 12 telescopically receives second element 14 and first linking means 62 is a flexible member. The speed control is the motor. Third element 16 is telescopically received in the second element 14. Linking means 62 is enclosed in the first element 12. Rollers (35, 43, 51, 57) guide the elements in tracks (36, 44, 52, 58). System 10 is a conveyor. The room that the system is used in can be illuminated. A toy is anything that can be used for amusement. Any object can be a toy since it depends upon the intent of the person using the device. The word

toy does not provide any structural limitation upon the invention. The movement of the conveyer is not dependent upon gravity.

Pipes does not disclose that the motion is controllably reversible.

Wilding teaches the use of a controller 25 for the purpose of controlling the movement of a conveyer 30 for the purpose maintaining consistent movement of the product being conveyed.

It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the device of Pipes as taught by Wilding for the purpose of maintaining consistent movement of the product being conveyed.

7. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pipes in view of Wozniak, U.S. Patent No. 4,735,373.

Pipes discloses a motion transmission and multiplication system (10) comprising: at least first 12 and second 14 elements extending in the same orientation and have anterior and posterior ends. A tool or other object can be connected to the system. At least a first means 62 links the first 12 and second 14 elements and is movable with respect to at least one of them. The first linking means 62 is arranged on the first element 12 such that when the first linking means 62 is provided with a driving motion (by pinion 22) in a direction of the orientation, the first 12 and second 14 elements are provided with a driven motion with respect to each other. It is considered inherent in the system of Pipes that the motion is controllably reversible.

Pipes does not disclose that the system is "hand-movable".

Wozniak teaches that the use of a hand crank or a motor is a matter of design choice in the field of conveyors, see col. 1, lines 53 and 54. It is considered that the use of a hand crank makes the system "hand-movable" in accordance with applicant's disclosure.

It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the device of Pipes as taught by Wozniak as a matter of design choice.

8. Claims 1-3, 5, 8-12, 16-19, 23, and 40 are rejected under 35U.S.C. 103(a) as being unpatentable over White, U.S. Patent No, 1,456,478 in view of Wilding.

White discloses a motion transmission and multiplication system comprising: at least first 20 and second 23 elements extending in the same orientation; and at least a first flexible means 43 linking said first 20 and second 23 elements and being movable with respect to at least one of them, said first flexible linking means 43 being arranged on said first element 20 such that when said first flexible linking means 43 is provided with a driving motion (by gearwheels 46, 48) in a direction of said orientation, said first 20 and second 23 elements are provided with a driven motion with respect to each other. First 20 and second 23 elements are rigid and telescope in side-by-side tracks. The first, second and third elements are rigid and driven by screw 16. First 20, second 23, and third 24 elements are shutters.

White does not disclose the use of a controller.

Wilding teaches the use of a controller 25 for the purpose of controlling the movement of a linear device (conveyer 30) for the purpose maintaining consistent movement of the product being conveyed.

It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the device of White as taught by Wilding for the purpose of maintaining consistent movement of the device.

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9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over White in view of Wilding as applied to claims 1-3, 5, 8-12, 16-19, 23, and 40 above, and further in view of Sandberg, U.S. Patent No. 326,336.

White in view of Wilding, as set forth above, discloses all of the claimed invention except that the driving motion is provided by hand.

Sandberg teaches the use of a hand crank G for the purpose of allowing hand operation of an extendible member.

It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the device of White in view of Wilding and further in view of Sandberg to incorporate a hand crank for the purpose of allowing hand operation of the device.

Allowable Subject Matter

10. Claims 6, 7, 13-15, 19-22, 25-35, 37, 39, 43, 44, 46, 48, and 49 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

In an effort to advance prosecution of the present application the Examiner has proposed an Examiner's Amendment that would place the application in condition for allowance. If the applicant agrees to the Examiner's Amendment, the applicant should communicate with the Examiner via telephone or written correspondence granting the Examiner authorization for the amendment.

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PROPOSED EXAMINER'S AMENDMENT

In the abstract:

- a. Delete the last sentence.

In the Claims:

- b. Claim 1, after the last line insert - -- wherein said second element is nested within said first element and arranged for telescopically-driven motion therein, said first linking means comprising a flexible loop attached at a posterior portion of said second element and arranged such that said driving motion is loop-type on said first element, to provide said telescopically-driven motion; and an elastic hose connected internally between said first and second elements to enable flow of materials between input and output ends thereof. - -

(limitations of claims 5 and 6 added to claim 1)

- c. Cancel claim 5.
- d. Cancel claim 6.
- e. Cancel claim 50.

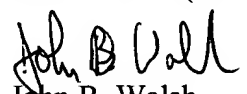
Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B. Walsh whose telephone number is 571-272-7063. The examiner can normally be reached on Monday-Wednesday from 5:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on 571-272-3939. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John B. Walsh
Primary Examiner
Art Unit 2151

APPENDIX

Listing of the Claims:

Claim 1 (previously amended)- A motion transmission and multiplication system for use with systems, devices or structures that require movement of segments, to enable extendable and retractable motion, such as cleaning systems, measuring systems, hand-movable tools, music instruments and accessories, electrical and telecommunication devices, transportation and delivery systems, shades, sailing boats, chairs, tripods, tables and tents, said motion transmission and multiplication system comprising:

at least first and second elements each having anterior and posterior ends, said elements extending in the same orientation, each element having at least one point thereon connectable to a tool or other object; and at least a first means linking said first and second elements and being movable with respect to at least one of them, said first linking means also being connectable to an additional element;

said first linking means being arranged on said elements such that when said first linking means is moved with a controllably reversible driving motion with respect to either of said anterior or posterior ends of a selected reference one of the at least first and second elements, wherein said driving motion is in a direction in-line with said orientation, then said first and second elements, and if connected, said additional element are simultaneously provided with a controllably reversible and multipliable, non-gravity dependent, linear-to-linear driven motion with respect to each other in-line with said orientation;

said driven motion being in the same direction as said driving motion, or reverse thereto, in accordance with which reference one of said first and second elements was selected in respect of said driving motion.

Claim 2 (original). The system of claim 1 wherein said driving motion is in the same direction as said driven motion of said second element.

Claim 3 (original). The system of claim 1 wherein said driving motion is in the opposite direction of said driven motion of said second element.

Claim 4 (cancelled).

Claim 5 (original). The system of claim 1 wherein said second element is nested within said first element and arranged for telescopically-driven motion therein, said first linking means comprising a flexible loop attached at a posterior portion of said second element and arranged such that said driving motion is loop-type on said first element, to provide said telescopically-driven motion.

Claim 6 (original). The system of claim 5 further comprising an elastic hose connected internally between said first and second elements to enable flow of materials between input and output ends thereof.

Claim 7 (original). The system of claim 6 further comprising a speed control element associated with said first and second elements for operating an apparatus in relation to said driven motion.

Claim 8 (original). The system of claim 5 further comprising a third element nested within said second element and arranged for telescopically-driven motion therein, said third element being linked to said first element by a second linking means comprising a second flexible loop

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being attached at a posterior portion of said third element and being arranged such that said driving motion is loop-type on said second element, to provide said telescopically-driven motion of said third element.

Claim 9 (original). The system of claim 1 wherein said second element is nested within said first element and arranged for telescopically-driven motion therein, said first linking means comprising a first rack arranged such that said driving motion is of a sliding type on said first element, said first rack engaging a pinion gear rotatably supported at an anterior portion of said first element, a gearwheel coaxial with said pinion gear engaging a second rack mounted on said second element such that said sliding-type driving motion of said first rack on said first element provides said telescopically-driven motion.

Claim 10 (original). The system of claim 9 wherein a gear ratio between said pinion gear and gearwheel fixes said telescopically-driven motion.

Claim 11 (original). The system of claim 1 wherein said second element is nested within said first element and arranged for telescopic motion therein, said first linking means comprising a toothed flexible loop arranged such that said driving motion is of a loop-type on said first element, said toothed loop engaging a pinion gear rotatably supported at an anterior portion of said first element, a gearwheel coaxial with said pinion gear engaging a second rack mounted on said second element such that said loop-type driving motion of said toothed flexible loop on said first element provides said telescopically-driven motion.

Claim 12 (original). The system of claim 11 further comprising a motor connected to said gearwheel for driving said loop-type motion.

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Claim 13 (original). The system of claim 1 wherein said second element is nested within said first element and arranged for telescopically-driven motion therein, said first linking means comprising a first rigid arm attached at an anterior portion of said second element and arranged such that said driving motion is of a sliding-type on said first element, to provide said second element with said telescopically-driven motion.

Claim 14 (original). The system of claim 13 further comprising a third element nested within said second element and arranged for telescopically-driven motion therein, and second and third linking means, said second linking means developing driven motion in response to said driving motion of said first linking means, said third linking means developing driven motion in response to said driven motion of said second linking means, to provide said telescopically-driven motion of said third element.

Claim 15 (original). The system of claim 14 wherein said second linking means comprises a flexible loop arranged for loop-type motion on said first rigid arm, and said third linking means comprises a second rigid arm arranged for sliding-type motion on said first rigid arm, said loop being attached to an anterior portion of said first element, said second rigid arm being attached between said loop and said third element.

Claim 16 (original). The system of claim 1 wherein said first element is a first rigid arm and said second element is a second rigid arm which slides thereon, said first rigid arm having a flexible loop arranged for loop-type driving motion between its ends, said second ridge arm being attached at a posterior end to said flexible loop such that when said loop-type driving motion is provided, said second rigid arm is provided with driven motion.

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Claim 17 (original). The system of claim 16 provided as a kit for self-assembly and attachment to a set of elements to be nested one within another for providing telescopically-driven motion.

Claim 18 (original). The system of claim 16 further comprising a set of first, second and third elements nested within one another and arranged for telescopically-driven motion between them, said first rigid arm being arranged for sliding-type driving motion on said first element, and being attached to an anterior portion of said second element, said flexible loop being attached to said first element, and said second rigid arm being attached to said third element to provide said telescopically-driven motion.

Claim 19 (previously amended). The system of claim 18 in combination with nested vacuum cleaner rods arranged for telescopically-driven motion.

Claim 20 (original). The system of claim 19 further comprising an expandable elastic tube within said vacuum cleaner rods for suction transfer.

Claim 21 (original). The system of claim 19 further comprising an expandable elastic tube external to said vacuum cleaner rods for suction transfer.

Claim 22 (original). The system of claim 19 further comprising an elastic sleeve around said rod elements to maintain a dust/dirt barrier.

Claim 23 (original). The system of claim 1 further comprising a motorized screw and a third element nested within said second element and arranged for telescopically-driven motion therein, said motorized screw being arranged such that said driving motion is screw-type on said second element, to provide said third element with said telescopically-driven motion.

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Claim 24 (previously amended). The system of claim 23 further comprising limit switches mounted on at least one of said elements for electrically controlling said screw-type driving motion.

Claim 25 (original). The system of claim 1 further comprising a central element disposed proximate said first and second elements, said central element having an element slidably mounted thereon and being connected to provide sliding-type driving motion to said first linking means.

Claim 26 (previously amended). The system of claim 25 in combination with a tripod having a plurality of legs each pivotable at an end of said central element and being arranged for said telescopically-driven motion.

Claim 27 (previously amended). The system of claim 25 in combination with a music stand having a plurality of legs each pivotable at an end of said central element and being arranged for said telescopically-driven motion.

Claim 28 (previously amended). The system of claim 25 in combination with an umbrella which opens and closes with said driven motion.

Claim 29 (previously amended). The system of claim 25 in combination with a parasol which opens and closes with said driven motion.

Claim 30 (original). The system of claim 25 further comprising a second central element and a second set of first and second elements, all being spaced apart from said central element, adapted for use with an awning, which opens and closes with said driven motion.

Claim 31 (original). The system of claim 1 further comprising a third element nested within said second element and arranged for telescopically-driven motion therein, said third element

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being linked to said first element by a spring-loaded tape tending to telescopically close said first, second and third elements together, said spring-loaded tape being calibrated with measurements such that driving motion of said first linking means provides said spring-loaded tape with telescopically-driven motion to enable distance measurement.

Claim 32 (original). The system of claim 1 adapted for use with a tape measure.

Claim 33 (original). The system of claim 1 further comprising a tool attached proximate at least one end of one of said first and second elements.

Claim 34 (original). The system of claim 33 wherein said tool is a drill and said first and second elements are rotatable about a common axis.

Claim 35 (original). The system of claim 33 further comprising control means for determining a working angle of said tool angle in relation to said driven motion of said first and second elements.

Claim 36 (original). The system of claim 1 wherein said linking means is enclosed within at least one of said first and second elements.

Claim 37 (original). The system of claim 1 wherein said first and second elements are rotatable about a common axis.

Claim 38 (original). The system of claim 1 wherein said first and second elements are movable side-by-side in tracks disposed adjacent one another.

Claim 39 (previously amended). The system of claim 38 adapted for use with curtains, which open and close with said driven motion.

Claim 40 (original). The system of claim 38 adapted for use with shutters, which open and close with said driven motion.

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Claim 41 (original). The system of claim 38 further comprising rollers mounted at the ends of said first and second elements for guiding said movement in said tracks.

Claim 42 (original). The system of claim 38 adapted for use as a conveyor, which opens and closes with said driven motion and which has cargo placed anywhere on at least one of said first and second elements.

Claim 43 (original). The system of claim 1 adapted for use as a wind instrument.

Claim 44 (original). The system of claim 1 adapted for use as a percussion instrument.

Claim 45 (original). The system of claim 1 adapted for use with illumination.

Claim 46 (original). The system of claim 1 adapted for use on a sailboat mast.

Claim 47 (original). The system of claim 1 adapted for use as an assembly toy.

Claim 48 (previously amended). The system of claim 1 wherein either of said first and second elements has mounted at an end thereof a surface for supporting at least one of a tool, an electrical device, a device for telecommunications, control, and/or home entertainment with at least one of flexible wiring, cable and/or tubes being extendible and retractable during motion of said first and second elements, at least one of said first and second elements being supported in a room to enable positioning of said surface at a desired position.

Claim 49 (previously added). The system of claim 1 further comprising a spring connected to at least one of said first and second elements to provide a force for reversing said reversible driving motion.

Claim 50 (previously added). A motion transmission and multiplication system for use with systems, devices or structures that require movement of segments, to enable extendable and retractable motion, such as cleaning systems, measuring systems, hand-movable tools, music

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instruments and accessories, electrical and telecommunication devices, transportation and delivery systems, shades, sailing boats, chairs, tripods, tables and tents, said motion transmission and multiplication system comprising: at least first and second hand-movable elements each having anterior and posterior ends, said elements extending in the same orientation, each element having at least one point thereon connectable to a tool or other object; and at least a first means linking said first and second elements and being movable with respect to at least one of them, said first linking means also being connectable to an additional element, said first linking means being arranged on said elements such that when said first linking means is moved with a controllably reversible driving motion with respect to either of said anterior and posterior ends of a selected reference one of either of said first and second elements, wherein said driving motion is in a direction in-line with said orientation, then said first and second elements, and if connected, said additional element are simultaneously provided with a controllably reversible and multipliable, non-gravity dependent, linear-to-linear driven motion with respect to each other in-line with said orientation, said driven motion being in the same direction as said driving motion, or reverse thereto, in accordance with which reference one of said first and second elements was selected in respect of said driving motion.